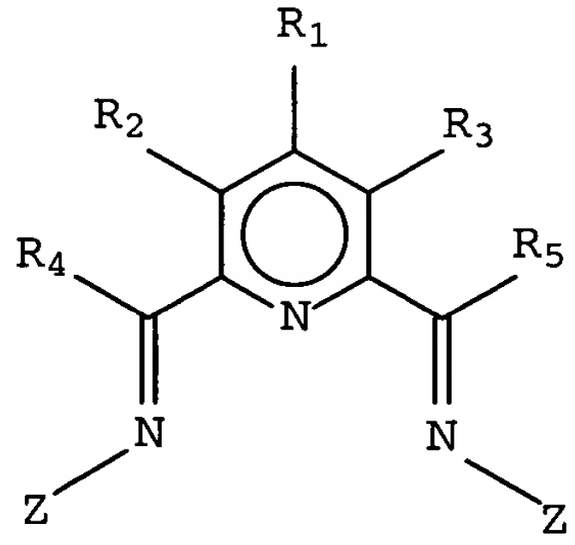
In the Claims:

Please amend the claims as follows:

1. (Currently amended) A process for production of higher linear alpha olefins and/or alkyl-branched alpha olefins having a chain length of from 4 to 100 carbon atoms comprising:

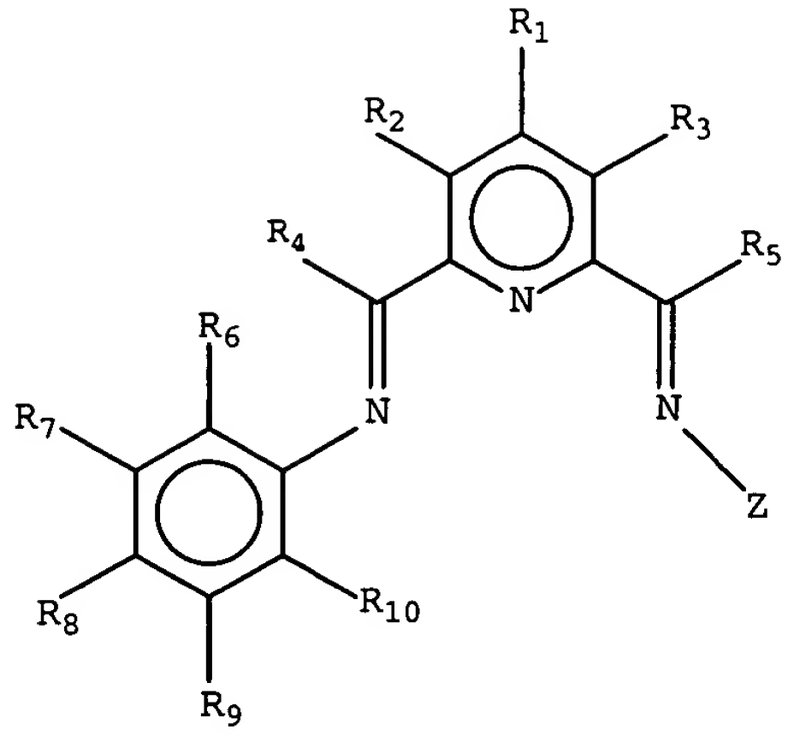
co-oligomerising one or more alpha olefins other than ethylene with ethylene in the presence of a metal catalyst system employing one or more bis-aryliminepyridine MX_a complexes and/or one or more [bis-aryliminepyridine $MY_p.L_b^+][NC^-]_q$ complexes, said bis-aryliminepyridine complexes comprising a ligand of the formula,



(I)

wherein M is a metal atom selected from Fe or Co; a is 2 or 3; X is halide, optionally substituted hydrocarbyl, alkoxide, amide, or hydride; Y is a ligand which may insert an olefin; NC- is a non-coordinating anion; p+q is 2 or 3, matching the formal oxidation of said metal atom; L is a neutral Lewis donor molecule; b = 0, 1, or 2; R_1-R_5 are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3 vicinal to one another taken together may form a ring; each Z, which may be identical or different, is an optionally substituted aromatic hydrocarbon ring; an optionally substituted polyaromatic hydrocarbon moiety; an optionally substituted heterohydrocarbyl moiety; or an optionally substituted aromatic hydrocarbon ring in combination with a metal, said optionally substituted aromatic hydrocarbon ring being π-co-ordinated to the metal; said co-oligomerising being carried out under conditions comprising an ethylene pressure of ~~less than 2.5 MPa~~ from about 0.1 MPa to about 1.6 MPa and a temperature of from about -100°C to about 300°C.

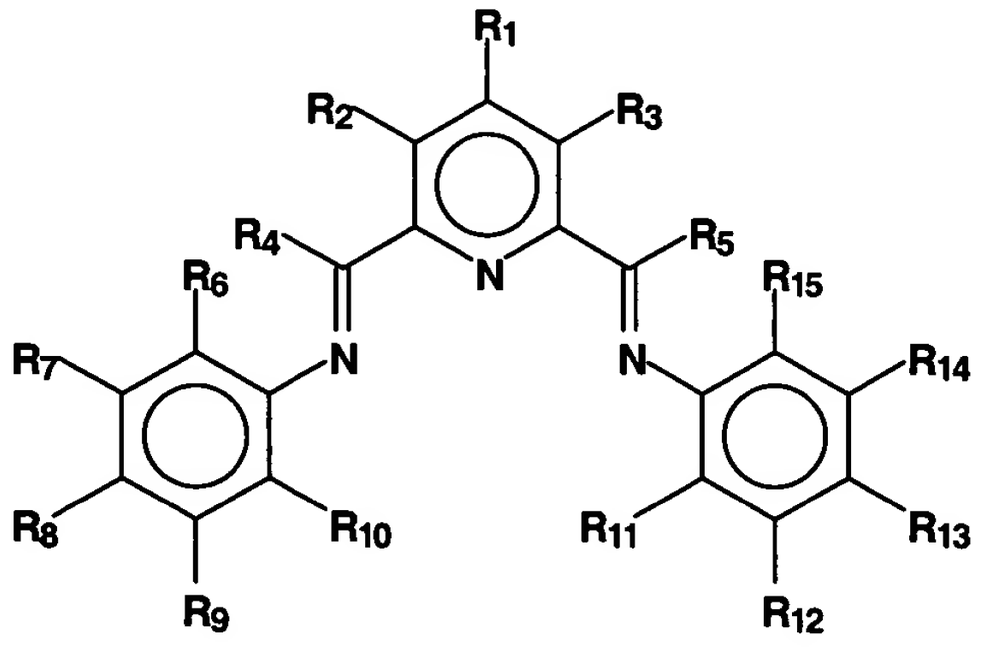
2. (Original) The process of Claim 1 wherein said ligand is of the formula,



(II)

wherein R_1-R_{10} are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3, R_6-R_{10} vicinal to one another taken together may form a ring; R_6 may be taken together with R_4 to form a ring; R_{10} may be taken together with R_4 to form a ring; Z is an optionally substituted aromatic hydrocarbon ring; an optionally substituted polyaromatic hydrocarbon moiety; an optionally substituted heterohydrocarbyl moiety; or an optionally substituted aromatic hydrocarbon ring in combination with a metal, said optionally substituted aromatic hydrocarbon ring being π-co-ordinated to the metal.

3. (Original) The process of Claim 1 wherein said ligand is of the formula,



(III)

wherein R_1-R_5, R_7-R_9 and R_{12}-R_{14} are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3, R_7-R_9 and R_{12}-R_{14} vicinal to one another taken together may form a ring; R_6 is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R_7 or R_4 to form a ring; R_{10} is hydrogen, optionally

substituted hydrocarbyl, an inert functional group, or taken together with R_9 or R_4 to form a ring; R_{11} is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R_5 or R_{12} to form a ring; and R_{15} is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R_5 or R_{14} to form a ring.

4. (Original) The process of Claim 3 wherein R_1-R_5, R_7-R_9 and R_{12}-R_{14} are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3, R_7-R_9 and R_{12}-R_{14} vicinal to one another taken together may form a ring; R_6 is a primary carbon group, a secondary carbon group or a tertiary carbon group; and provided that:

when R_6 is a primary carbon group none, one or two of R_{10}, R_{11} and R_{15} are primary carbon groups, and the remainder of R_{10}, R_{11} and R_{15} are hydrogen;

when R_6 is a secondary carbon group none or one of R_{10}, R_{11} and R_{15} is a primary carbon group or a secondary carbon group and the remainder of R_{10}, R_{11} and R_{15} are hydrogen;

when R_6 is a tertiary carbon group all of R_{10}, R_{11} and R_{15} are hydrogen; and

any two of R_6, R_7, R_8, R_9, R_{10}, R_{11}, R_{12}, R_{13}, R_{14} and R_{15} vicinal to one another, taken together may form a ring.

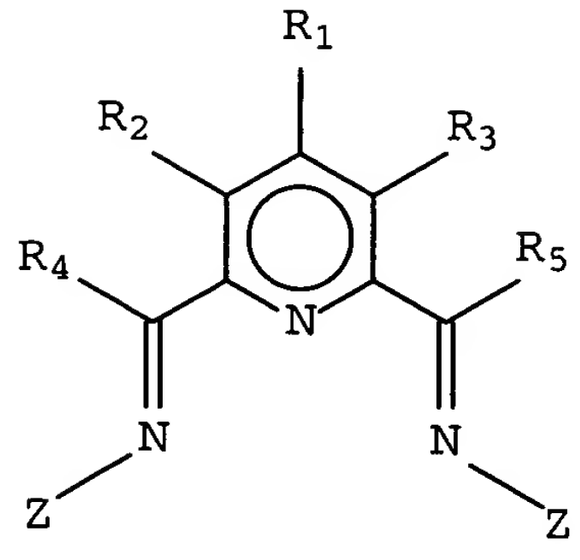
5. (Original) The process of Claim 3 wherein R_1-R_5, R_7-R_9 and R_{12}-R_{14} are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3, R_7-R_9 and R_{12}-R_{14} vicinal to one another taken together may form a ring; R_6 is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R_7 or R_4 to form a ring; R_{10} is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R_9 or R_4 to form a ring; R_{11} and R_{15} are, independently, hydrogen or an inert functional group.

6. (Original) The process of Claim 3 wherein R_1-R_5, R_7-R_9 and R_{12}-R_{14} are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3, R_7-R_9 and R_{12}-R_{14} vicinal to one another taken together may form a ring; R_6, R_{10}, R_{11} and R_{15} are identical and are each selected from fluorine or chlorine.

7. (Currently amended) A process for producing higher linear alpha olefins and/or alkyl-branched alpha olefins <u>having a chain length of from 4 to 100 carbon atoms</u> comprising:

co-oligomerising one or more alpha olefins other than ethylene with ethylene in the presence of

a metal catalyst system employing one or more bis-aryliminepyridine MX_a complexes and/or one or more [bis-aryliminepyridine $MY_p.L_b^+][NC^-]_q$ complexes, said bis-aryliminepyridine complexes comprising a ligand of the formula,



(I)

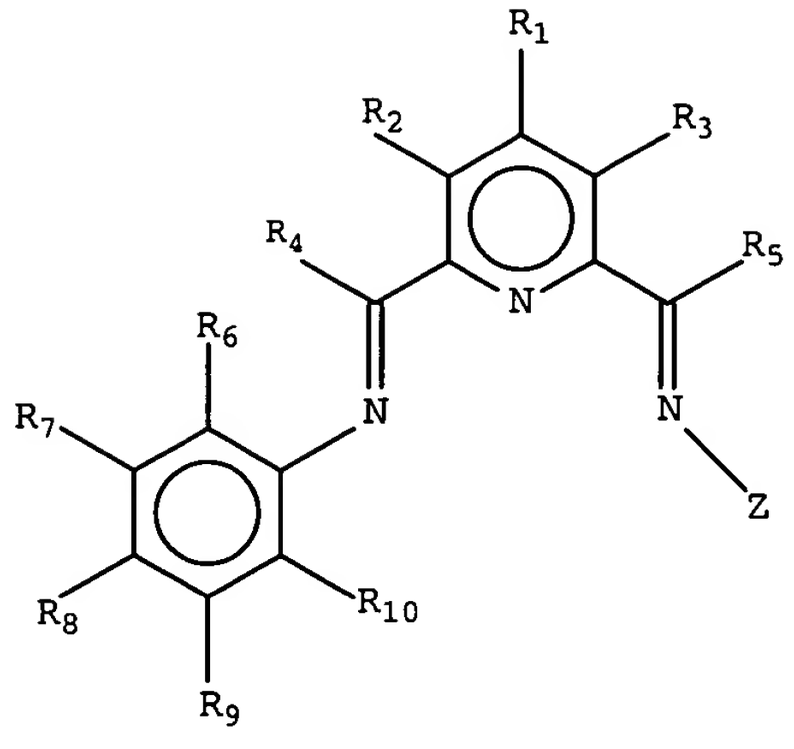
wherein M is a metal atom selected from Fe or Co; a is 2 or 3; X is halide, optionally substituted hydrocarbyl, alkoxide, amide, or hydride; Y is a ligand which may insert an olefin; NC^- is a non-coordinating anion; p+q is 2 or 3, matching the formal oxidation of said metal atom; L is a neutral Lewis donor molecule; b = 0, 1, or 2; R_1-R_5 are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3 vicinal to one another taken together may form a ring; each Z, which may be identical or different, is an optionally substituted aromatic hydrocarbon ring; an optionally substituted polyaromatic hydrocarbon moiety; an optionally substituted heterohydrocarbyl moiety; or an optionally substituted aromatic hydrocarbon ring in combination with a metal, said optionally substituted aromatic hydrocarbon ring being π-co-ordinated to the metal; said co-oligomerizing being carried out under conditions comprising an ethylene pressure of ~~less than 2.5 MPa~~ from about 0.1 MPa to about 1.6 MPa and a temperature of about -100°C to about 300°C, wherein alpha olefin co-monomer is present in a concentration of greater than 1 $mol.l^{-1}$.

Claims 8-12 (Canceled).

Claims 13-16 (Withdrawn)

Please amend the following new claims which were submitted in the previous paper:

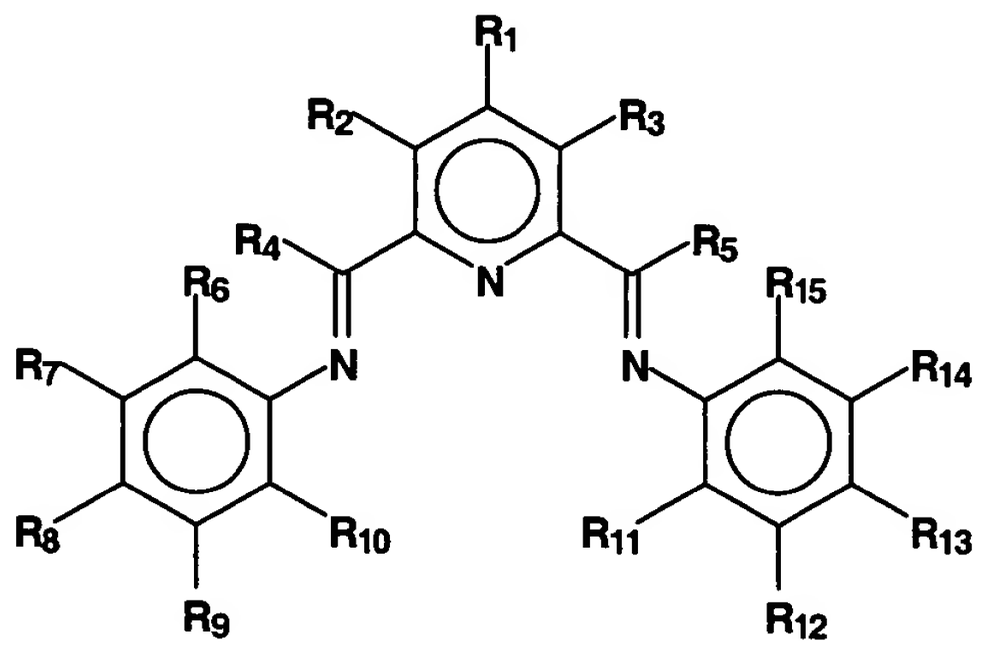
~~13~~17. (Currently Amended) The process of claim 7 wherein said ligand is of the formula,



(II)

wherein R_1-R_{10} are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3, R_6-R_{10} vicinal to one another taken together may form a ring; R_6 may be taken together with R_4 to form a ring; R_{10} may be taken together with R_4 to form a ring; Z is an optionally substituted aromatic hydrocarbon ring; an optionally substituted polyaromatic hydrocarbon moiety; an optionally substituted heterohydrocarbyl moiety; or an optionally substituted aromatic hydrocarbon ring in combination with a metal, said optionally substituted aromatic hydrocarbon ring being π-co-ordinated to the metal.

~~14~~18. (Currently Amended) The process of claim 7 wherein said ligand is of the formula,



(III)

wherein R_1-R_5, R_7-R_9 and R_{12}-R_{14} are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3, R_7-R_9 and R_{12}-R_{14} vicinal to one another taken together may form a ring; R_6 is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R_7 or R_4 to form a ring; R_{10}

is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R_9 or R_4 to form a ring; R_{11} is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R_5 or R_{12} to form a ring; and R_{15} is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R_5 or R_{14} to form a ring.

~~15~~19. (Currently Amended) The process of claim ~~14~~18 wherein R_1-R_5, R_7-R_9 and R_{12}-R_{14} are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3, R_7-R_9 and R_{12}-R_{14} vicinal to one another taken together may form a ring; R_6 is a primary carbon group, a secondary carbon group or a tertiary carbon group; and provided that:

when R_6 is a primary carbon group none, one or two of R_{10}, R_{11} and R_{15} are primary carbon groups, and the remainder of R_{10}, R_{11} and R_{15} are hydrogen;

when R_6 is a secondary carbon group none or one of R_{10}, R_{11} and R_{15} is a primary carbon group or a secondary carbon group and the remainder of R_{10}, R_{11} and R_{15} are hydrogen;

when R_6 is a tertiary carbon group all of R_{10}, R_{11} and R_{15} are hydrogen; and

any two of R_6, R_7, R_8, R_9, R_{10}, R_{11}, R_{12}, R_{13}, R_{14} and R_{15} vicinal to one another, taken together may form a ring.

~~16~~20. (Currently Amended) The process of claim ~~14~~18 wherein R_1-R_5, R_7-R_9 and R_{12}-R_{14} are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3, R_7-R_9 and R_{12}-R_{14} vicinal to one another taken together may form a ring; R_6 is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R_7 or R_4 to form a ring; R_{10} is hydrogen, optionally substituted hydrocarbyl, an inert functional group, or taken together with R_9 or R_4 to form a ring; R_{11} and R_{15} are, independently, hydrogen or an inert functional group.

~~17~~21. (Currently Amended) The process of claim ~~14~~18 wherein R_1-R_5, R_7-R_9 and R_{12}-R_{14} are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3, R_7-R_9 and R_{12}-R_{14} vicinal to one another taken together may form a ring; R_6, R_{10}, R_{11} and R_{15} are identical and are each selected from fluorine or chlorine.

Cancel claim 22 which was incorrectly numbered 18.

~~19~~23. (Currently Amended) The process of claim 1 wherein said conditions comprise a temperature of from about 0°C to about 200ºC.

Cancel claim 24 which was incorrectly numbered 20.

~~21~~25. (Currently Amended) The process of claim 7 wherein said conditions comprise a temperature of from about 0°C to about 200ºC.

~~22~~26. (Currently Amended) The process of claim 7 wherein said conditions comprise a temperature of from about 50°C to about 150ºC.

Cancel claim 27 which was incorrectly numbered 23.

~~24~~28. (Currently Amended) The process of claim ~~13~~17 wherein said conditions comprise a temperature of from about 0°C to about 200ºC.

Cancel claim 29 which was incorrectly numbered 25.

~~26~~30. (Currently Amended) The process of claim ~~14~~18 wherein said conditions comprise a temperature of from about 0°C to about 200ºC.

Cancel claim 31 which was incorrectly numbered 27.

~~28~~32. (Currently Amended) The process of claim ~~15~~19 wherein said conditions comprise a temperature of from about 0°C to about 200ºC.

Cancel claim 33 which was incorrectly numbered 29.

~~30~~34. (Currently Amended) The process of claim ~~16~~20 wherein said conditions comprise a temperature of from about 0°C to about 200ºC.

Cancel claim 35 which was incorrectly numbered 31.

~~32~~36. (Currently Amended) The process of claim ~~17~~21 wherein said conditions comprise a temperature of from about 0°C to about 200ºC.

~~33~~37. (Currently Amended) The process of claim ~~17~~21 wherein said conditions comprise a temperature of from about 50°C to about 150ºC.

Cancel claims 38-49 which were incorrectly numbered 34-45.

~~46~~50. (Currently Amended) The process of claim 1 wherein said alpha olefin co-monomer is present at a concentration of greater than 2.5 $mol.l^{-1}$.

~~47~~51. (Currently Amended) The process of claim 1 wherein said alpha olefin co-monomer is present at a concentration of greater than 5 $mol.l^{-1}$.

~~48~~52. (Currently Amended) The process of claim 2 wherein said alpha olefin co-monomer is present at a concentration of greater than 2.5 $mol.l^{-1}$.

~~49~~53. (Currently Amended) The process of claim 2 wherein said alpha olefin co-monomer is present at a concentration of greater than 5 $mol.l^{-1}$.

~~50~~54. (Currently Amended) The process of claim 3 wherein said alpha olefin co-monomer is present at a concentration of greater than 2.5 $mol.l^{-1}$.

~~51~~55. (Currently Amended) The process of claim 3 wherein said alpha olefin co-monomer is present at a concentration of greater than 5 $mol.l^{-1}$.

~~52~~56. (Currently Amended) The process of claim 4 wherein said alpha olefin co-monomer is present at a concentration of greater than 2.5 $mol.l^{-1}$.

~~53~~57. (Currently Amended) The process of claim 4 wherein said alpha olefin co-monomer is present at a concentration of greater than 5 $mol.l^{-1}$.

~~54~~58. (Currently Amended) The process of claim 5 wherein said alpha olefin co-monomer is present at a concentration of greater than 2.5 $mol.l^{-1}$.

~~55~~59. (Currently Amended) The process of claim 5 wherein said alpha olefin co-monomer is present at a concentration of greater than 5 $mol.l^{-1}$.

~~56~~60. (Currently Amended) The process of claim 1 wherein said conditions comprise a temperature and pressure effective to yield a product slate with a K-factor of from about 0.40 to about 0.90.

~~57~~61. (Currently Amended) The process of claim 7 wherein said conditions comprise a temperature and pressure effective to yield a product slate with a K-factor of from about 0.40 to about 0.90.

~~58~~62. (Currently Amended) The process of claim ~~13~~17 wherein said conditions comprise a temperature and pressure effective to yield a product slate with a K-factor of from about 0.40 to about 0.90.

~~59~~63. (Currently Amended) The process of claim ~~14~~18 wherein said conditions comprise a temperature and pressure effective to yield a product slate with a K-factor of from about 0.40 to about 0.90.

~~60~~64. (Currently Amended) The process of claim ~~15~~19 wherein said conditions comprise a temperature and pressure effective to yield a product slate with a K-factor of from about 0.40 to about 0.90.

~~61~~65. (Currently Amended) The process of claim ~~16~~20 wherein said conditions comprise a temperature and pressure effective to yield a product slate with a K-factor of from about 0.40 to about 0.90.

~~62~~66. (Currently Amended) The process of claim ~~17~~21 wherein said conditions comprise a temperature and pressure effective to yield a product slate with a K-factor of from about 0.40 to about 0.90.

~~63~~67. (Currently Amended) The process of claim ~~20~~24 wherein said conditions comprise a temperature and pressure effective to yield a product slate with a K-factor of from about 0.40 to about 0.90.

~~64~~68. (Currently Amended) The process of claim ~~23~~27 wherein said conditions comprise a temperature and pressure effective to yield a product slate with a K-factor of from about 0.40 to about 0.90.

~~65~~69. (Currently Amended) The process of claim ~~46~~50 wherein said conditions comprise a temperature and pressure effective to yield a product slate with a K-factor of from about 0.40 to about 0.90.

~~66~~70. (Currently Amended) The process of claim ~~47~~51 wherein said conditions comprise a temperature and pressure effective to yield a product slate with a K-factor of from about 0.40 to about 0.90.

~~67~~71. (Currently Amended) The process of claim 1 wherein said conditions comprise an inert solvent.

~~68~~72. (Currently Amended) The process of claim 7 wherein said conditions comprise an inert solvent.

~~69~~73. (Currently Amended) The process of claim ~~46~~50 wherein said conditions comprise an inert solvent.

~~70~~74. (Currently Amended) The process of claim ~~47~~51 wherein said conditions comprise an inert solvent.

~~71~~75. (Currently Amended) The process of claim ~~65~~69 wherein said conditions comprise an inert solvent.

~~72~~76. (Currently Amended) The process of claim ~~66~~70 wherein said conditions comprise an inert solvent.

~~73~~77. (Currently Amended) The process of claim ~~67~~71 wherein said inert solvent is selected from the group consisting of alkanes, alkenes, cycloalkanes, and aromatic hydrocarbons.

~~74~~78. (Currently Amended) The process of claim ~~68~~72 wherein said inert solvent is selected from the group consisting of alkanes, alkenes, cycloalkanes, and aromatic hydrocarbons.

~~75~~79. (Currently Amended) The process of claim ~~69~~73 wherein said inert solvent is selected from the group consisting of alkanes, alkenes, cycloalkanes, and aromatic hydrocarbons.

~~76~~80. (Currently Amended) The process of claim ~~70~~74 wherein said inert solvent is selected from the group consisting of alkanes, alkenes, cycloalkanes, and aromatic hydrocarbons.

~~77~~81. (Currently Amended) The process of claim ~~71~~75 wherein said inert solvent is selected from the group consisting of alkanes, alkenes, cycloalkanes, and aromatic hydrocarbons.

~~78~~82. (Currently Amended) The process of claim ~~72~~76 wherein said inert solvent is selected from the group consisting of alkanes, alkenes, cycloalkanes, and aromatic hydrocarbons.

~~79~~83. (Currently Amended) The process of claim ~~67~~71 wherein said inert solvent is selected from the group consisting of hexane, isooctane, benzene, toluene, and xylene.

~~80~~84. (Currently Amended) The process of claim ~~68~~72 wherein said inert solvent is selected from the group consisting of hexane, isooctane, benzene, toluene, and xylene.

~~81~~85. (Currently Amended) The process of claim ~~69~~73 wherein said inert solvent is selected from the group consisting of hexane, isooctane, benzene, toluene, and xylene.

~~82~~86. (Currently Amended) The process of claim ~~70~~74 wherein said inert solvent is selected from the group consisting of hexane, isooctane, benzene, toluene, and xylene.

~~83~~87. (Currently Amended) The process of claim ~~71~~75 wherein said inert solvent is selected from the group consisting of hexane, isooctane, benzene, toluene, and xylene.

~~84~~88. (Currently Amended) The process of claim ~~72~~76 wherein said inert solvent is selected from the group consisting of hexane, isooctane, benzene, toluene, and xylene.

~~85~~89. (Currently Amended) The process of claim 1 wherein said conditions comprise the absence of air and moisture.

~~86~~90. (Currently Amended) The process of claim 7 wherein said conditions comprise the absence of air and moisture.

Please add the following new claims:

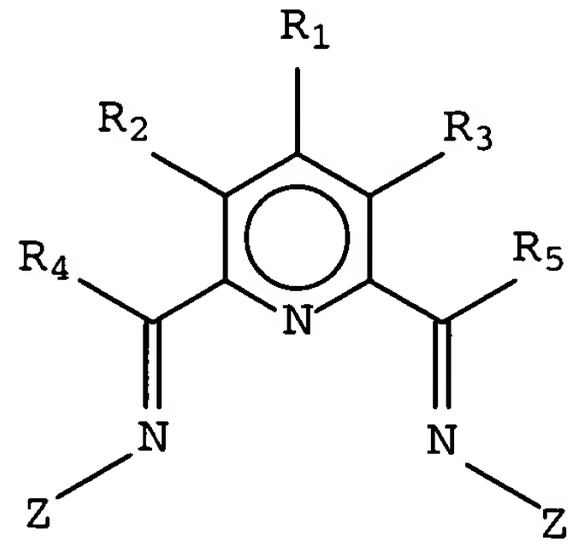
91. (New) A process for production of higher alkyl-branched alpha olefins having a chain length of from 4 to 100 carbon atoms and having the general structure:

$$C = C[-C-C]_n[-C]_m(R_1)-R_2$$

wherein R_1 is a methyl group; n = 0, 1, 2, etc.; m = 1; and R_2 is an optionally substituted hydrocarbyl, said process comprising:

co-oligomerising one or more alpha olefins other than ethylene with ethylene in the presence of a metal catalyst system employing one or more bis-aryliminepyridine MX_a

complexes and/or one or more [bis-aryliminepyridine $MY_p.L_b^+][NC^-]_q$ complexes, said bis-aryliminepyridine complexes comprising a ligand of the formula,



(I)

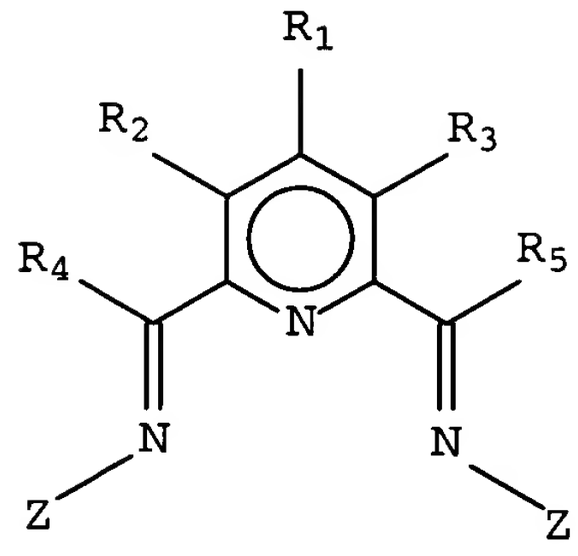
wherein M is a metal atom selected from Fe or Co; a is 2 or 3; X is halide, optionally substituted hydrocarbyl, alkoxide, amide, or hydride; Y is a ligand which may insert an olefin; NC- is a non-coordinating anion; p+q is 2 or 3, matching the formal oxidation of said metal atom; L is a neutral Lewis donor molecule; b = 0, 1, or 2; R_1-R_5 are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3 vicinal to one another taken together may form a ring; each Z, which may be identical or different, is an optionally substituted aromatic hydrocarbon ring; an optionally substituted polyaromatic hydrocarbon moiety; an optionally substituted heterohydrocarbyl moiety; or an optionally substituted aromatic hydrocarbon ring in combination with a metal, said optionally substituted aromatic hydrocarbon ring being π-co-ordinated to the metal; said co-oligomerising being carried out under conditions comprising an ethylene pressure of from about 0.1 MPa to about 1.6 MPa.

92. (New) A process for production of higher alkyl-branched alpha olefins having a chain length of from 4 to 100 carbon atoms and having the general structure:

$$C = C[-C-C]_n(R_1)-R_2$$

wherein R_1 is an ethyl group; n = 0, 1, 2, etc.; and R_2 is an optionally substituted hydrocarbyl, said process comprising:

co-oligomerising one or more alpha olefins other than ethylene with ethylene in the presence of a metal catalyst system employing one or more bis-aryliminepyridine MX_a complexes and/or one or more [bis-aryliminepyridine $MY_p.L_b^+][NC^-]_q$ complexes, said bis-aryliminepyridine complexes comprising a ligand of the formula,



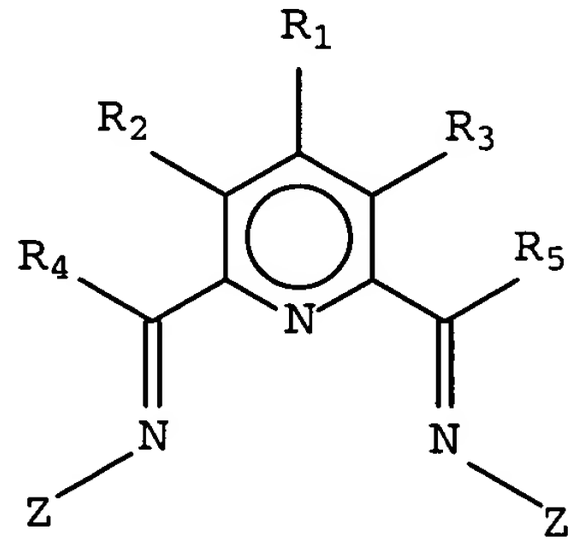
(I)

wherein M is a metal atom selected from Fe or Co; a is 2 or 3; X is halide, optionally substituted hydrocarbyl, alkoxide, amide, or hydride; Y is a ligand which may insert an olefin; NC- is a non-coordinating anion; p+q is 2 or 3, matching the formal oxidation of said metal atom; L is a neutral Lewis donor molecule; b = 0, 1, or 2; R_1-R_5 are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3 vicinal to one another taken together may form a ring; each Z, which may be identical or different, is an optionally substituted aromatic hydrocarbon ring; an optionally substituted polyaromatic hydrocarbon moiety; an optionally substituted heterohydrocarbyl moiety; or an optionally substituted aromatic hydrocarbon ring in combination with a metal, said optionally substituted aromatic hydrocarbon ring being π-co-ordinated to the metal; said co-oligomerising being carried out under conditions comprising an ethylene pressure from about 0.1 MPa to about 1.6 MPa.

93. (New) A process for producing higher linear alpha olefins and/or alkyl-branched alpha olefins having a chain length of from 4 to 100 carbon atoms comprising:

co-oligomerising one or more alpha olefins other than ethylene with ethylene in the presence of

a metal catalyst system employing one or more bis-aryliminepyridine MX_a complexes and/or one or more [bis-aryliminepyridine $MY_p.L_b^+$][NC^-]$_q$ complexes, said bis-aryliminepyridine complexes comprising a ligand of the formula,



(I)

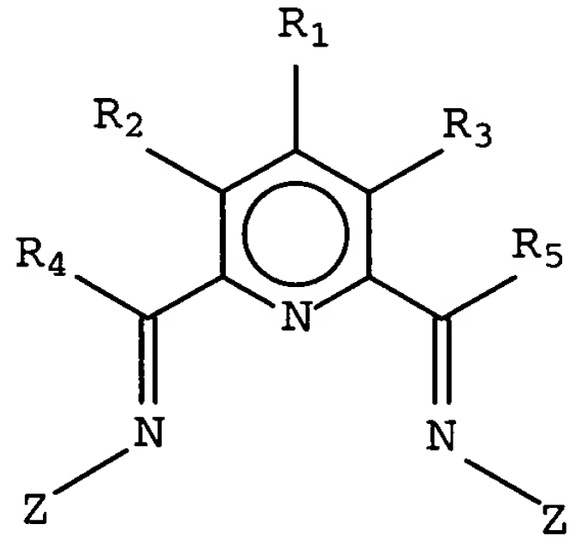
wherein M is a metal atom selected from Fe or Co; a is 2 or 3; X is halide, optionally substituted hydrocarbyl, alkoxide, amide, or hydride; Y is a ligand which may insert an olefin; NC^- is a non-coordinating anion; p+q is 2 or 3, matching the formal oxidation of said metal atom; L is a neutral Lewis donor molecule; b = 0, 1, or 2; R_1-R_5 are each, independently, hydrogen, optionally substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3 vicinal to one another taken together may form a ring; each Z, which may be identical or different, is an optionally substituted aromatic hydrocarbon ring; an optionally substituted polyaromatic hydrocarbon moiety; an optionally substituted heterohydrocarbyl moiety; or an optionally substituted aromatic hydrocarbon ring in combination with a metal, said optionally substituted aromatic hydrocarbon ring being π-co-ordinated to the metal; said co-oligomerizing being carried out under conditions comprising an ethylene pressure of from about 0.1 MPa to about 1.6 MPa, wherein alpha olefin co-monomer is present in a concentration of greater than 1 $mol.l^{-1}$.

94. (New) A process for production of higher alkyl-branched alpha olefins having a chain length of from 1 to 100 carbon atoms and having the general structure:

$$C = C[\text{-}C\text{-}C]_n(R_1)\text{-}R_2$$

wherein R_1 is an ethyl group; n = 0, 1, 2, etc.; and R_2 is an optionally substituted hydrocarbyl, said process comprising:

co-oligomerising one or more alpha olefins other than ethylene with ethylene in the presence of a metal catalyst system employing one or more bis-aryliminepyridine MX_a complexes and/or one or more [bis-aryliminepyridine $MY_p.L_b^+$][NC^-]$_q$ complexes, said bis-aryliminepyridine complexes comprising a ligand of the formula,



(I)

wherein M is a metal atom selected from Fe or Co; a is 2 or 3; X is halide, optionally substituted hydrocarbyl, alkoxide, amide, or hydride; Y is a ligand which may insert an olefin; NC- is a non-coordinating anion; p+q is 2 or 3, matching the formal oxidation of said metal atom; L is a neutral Lewis donor molecule; b = 0, 1, or 2; R_1-R_5 are each, independently, hydrogen, optionally

substituted hydrocarbyl, an inert functional group, or any two of R_1-R_3 vicinal to one another taken together may form a ring; each Z, which may be identical or different, is an optionally substituted aromatic hydrocarbon ring; an optionally substituted polyaromatic hydrocarbon moiety; an optionally substituted heterohydrocarbyl moiety; or an optionally substituted aromatic hydrocarbon ring in combination with a metal, said optionally substituted aromatic hydrocarbon ring being π-co-ordinated to the metal; said co-oligomerising being carried out under conditions comprising an ethylene pressure of from about 0.1 MPa to about 1.6 MPa.